REMARKS

This amendment is in response to the Office Action mailed May 3, 2008. Applicant would also like to thank the Examiner for his courteous assistance in the interview conducted on June 21, 2006. During this interview, the Williamson reference and possible amendments to the claims were discussed. The examiner suggested that applicant should point to support for any claim amendments in the specification.

Claims 16, 21, 35, and 36 have been amended. Support for the amendments to claims 16, 35, and 36 may be found in the substitute specification at least at page 12, lines 20-26; at page 13, lines 18-25; at page 19, lines 16-19; and in Fig. 3, at label 142. New claim 37 is supported at least at page 3, lines 17-18; page 13, line 25 - page 14, line 8; and in Fig. 2, label 148. Support for new claims 38-41 and the amendment to claim 21 may be found at least at page 20, lines 1-13.

An executed terminal disclaimer is also attached. This terminal disclaimer obviates the obviousness-type double-patenting rejection in the Office Action.

Claim 16

The invention, as now presented in amended claim 16, features a method for visualizing data. This method includes retrieving data records from a stored data set, and automatically detecting a minimum value and a maximum value for a data range for each of at least some of the fields in the retrieved records. Scales are automatically assigned to display query devices based on these automatically detected minimum and maximum values. The user can then adjust the query devices to update a graphical visualization for the data.

Automatically assigning scales to query devices based on minimum and maximum values detected in a stored data set is a very powerful way to allow users to work with data. This arrangement can allow them to select a data set, and then immediately begin interacting with it. There is no need for them to decide on an appropriate data scale for a potentially large number of fields. There is not even a need for them to have much of an idea of what is in the data set, let alone know what the minimum and maximum values are for the ranges in the fields. Users can just begin exploring full ranges of data within seconds or less.

This approach to interacting with data removes much of the formalism from data analysis tasks. Instead of wasting mental energy on the mechanics of manually determining minimum and

maximum values for data and using these values to define scales for query devices, the user can immediately begin to seek meaningful patterns in information that is buried deep within the data. The result is an interactive, creative process that tends to yield a high degree of insight into the data. This is very important in "high change" environments where pre-programming tends not to be very viable.

Claim 16 stands rejected as anticipated by an article by Williamson entitled "The Dyanmic HomeFinder: Evaluating Dynamic Queries in a Real-Estate Information Exploration System." The Office Action argues that the Williamson article satisfies all of the elements of claim 16.

But the Williamson article does not disclose the invention as now claimed in amended claim 16. Specifically, nowhere does Williamson even state that the top and bottom values of his sliders should change, let alone that one should automatically detect minimum and maximum values for data ranges from a stored data set and automatically assign scales to query devices based on these detected minimum and maximum values. And while figures 1-6 all show Williamson's sliders, these are always shown with the same top and bottom values. Nothing in the Williamson paper therefore indicates that the top and bottom slider values are anything other than hard-coded values set by the programmer.

There is also additional evidence that the version of Williamson's HomeFinder program described in his article did not assign scales to query devices based on minimum and maximum values detected in a stored data set. This evidence is apparent from the operation of a 1992 version of the HomeFinder program that has been made available by the University of Maryland. The University of Maryland describes this version as their "classic 1992 DOS application that demonstrates the concept of dynamic queries in a familiar real-estate domain." This statement implies that it is the program described in its author's publications, and operating the program yields screens that are very similar to those shown in the Williamson paper at issue. The examiner can obtain a copy of the program at http://www.cs.umd.edu/hcil/pubs/products.shtml.

Simple observation of this program demonstrates that the values allocated to the top and bottom ends of its query device are hard-coded for one particular data set. Specifically, the second column of the data file that the program uses (dq.dat) represents the number of bedrooms. This can be readily shown by deleting all of the records in the file, except for the first one, and running the program to show a single dot representing a four-bedroom house (see Appendix A). Changing the

value in the second column to five and then running the program again causes the program to display the same single dot as representing a five-bedroom house (see Appendix B).

But changing the data for the only house in the file has no effect on the bedroom slider. The program keeps its one-to-seven extent for the bedroom slider even though the minimum and maximum bedroom values are both equal to five (or four, or any other number or set of numbers that applicant has tested). And the house disappears altogether if the number of bedrooms is set to eight or above (see Appendix C). This indicates that the bedroom slider has a hard-coded bottom-end value of one and a hard-coded top-end value of seven, and that these values do not depend on detecting minimum and maximum values of ranges in the data file.

For the reasons presented above, it is clear that Williamson's work does not disclose or suggest the invention as now claimed in amended claim 16. Williamson's paper does not disclose or suggest automatically assigning scales to query devices based on minimum and maximum values that are automatically detected in a stored data set. And the operation of at least one actual version of his program strongly supports this conclusion. Absent any further information, therefore, the evidence of record clearly shows that claim 16 patently distinguishes over Williamson's work.

Claims 35 and 36 distinguish over the prior art of record for reasons similar to those advanced in support of claim 16. Claims 15-34 are allowable for at least the reason that they depend on an allowable claim. Claims 37-40 are new and their examination is respectfully requested. These new claims should also be allowable for at least the reason that they depend on an allowable claim.

This application should now be in condition for allowance, and a statement to this effect is respectfully requested. Should further questions arise concerning this application, the Examiner is invited to call Applicants' representative at the number listed below. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account No. 50-0750.

Respectfully submitted,

August 11, 2006
Dated

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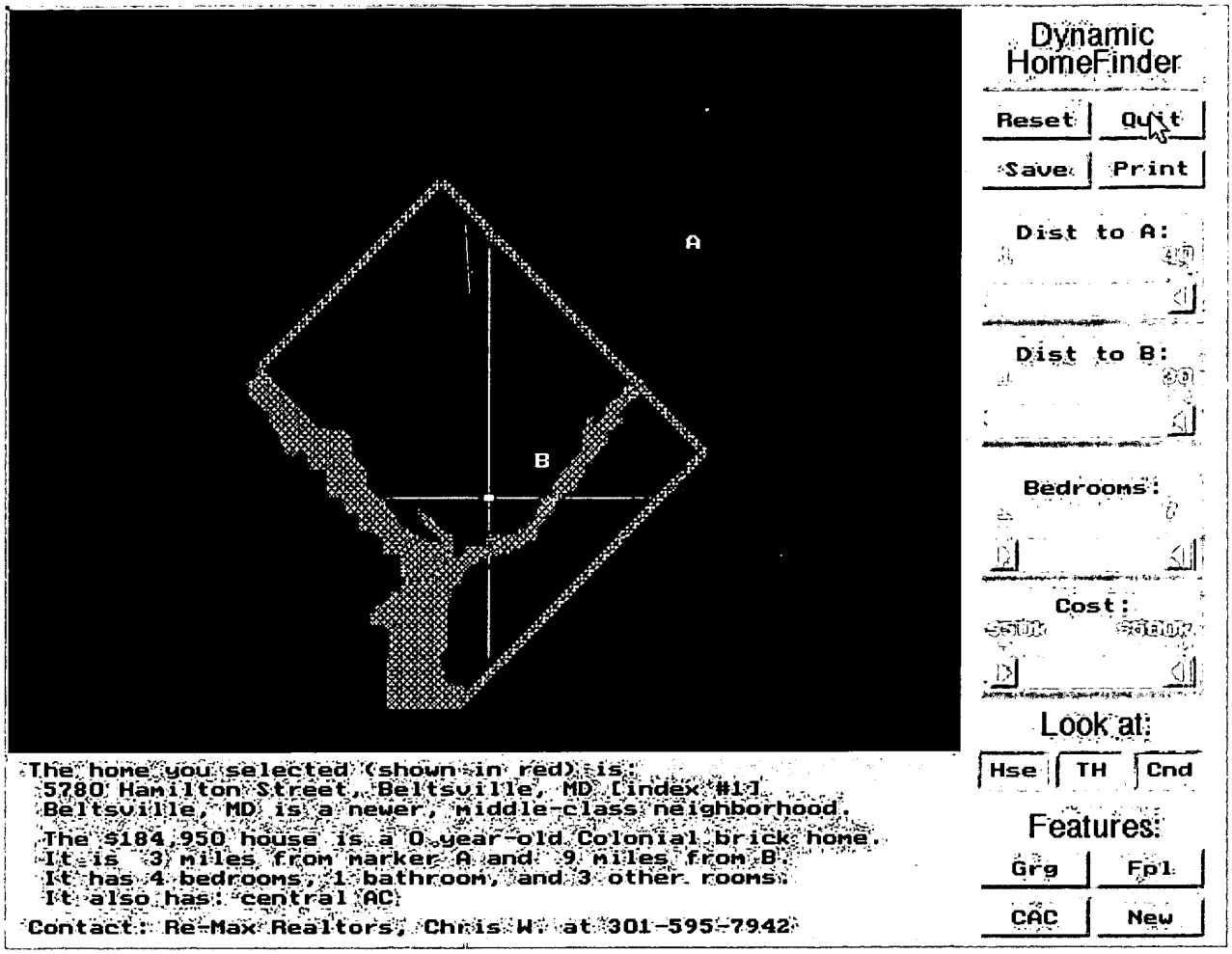
A
B
Dynamic HomeFinder
Reset
Quit
Save
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Dist to A:
Dist to B:
Bedrooms:
Cost:
Look at:
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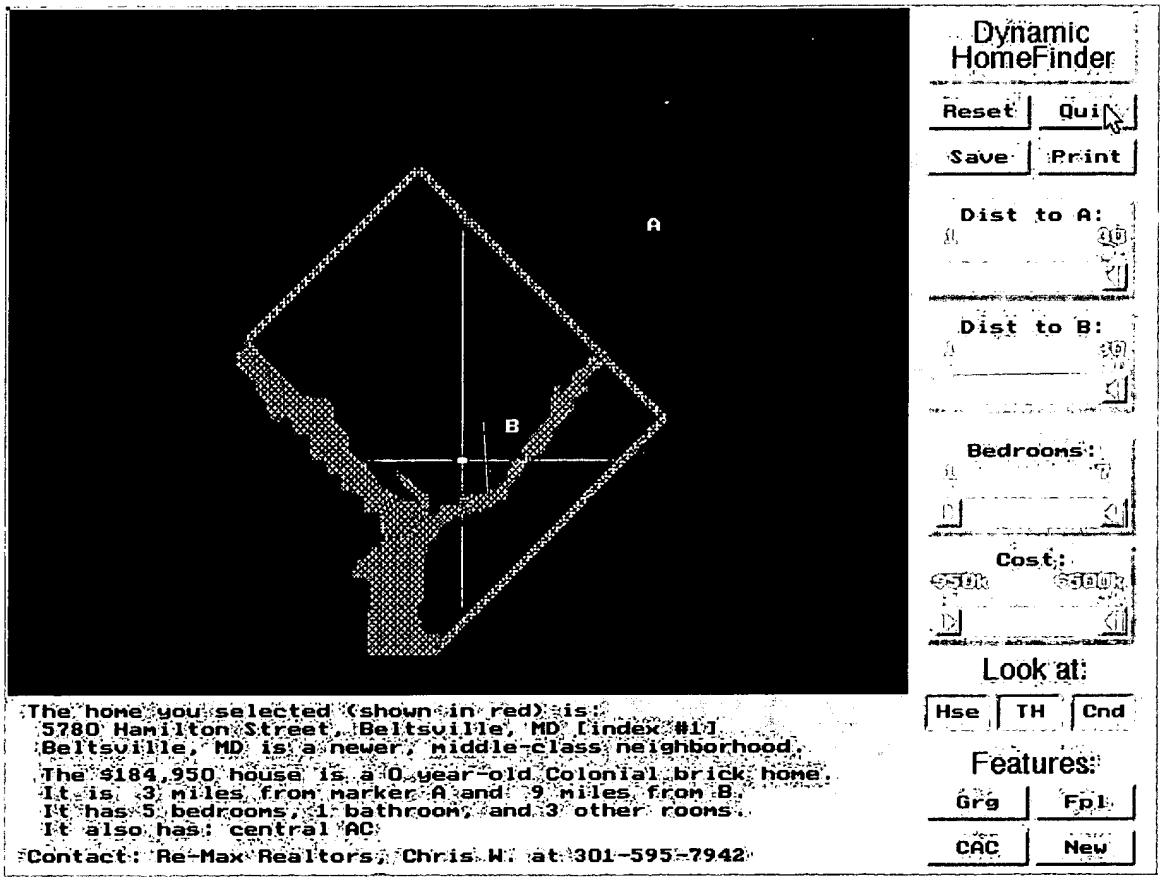
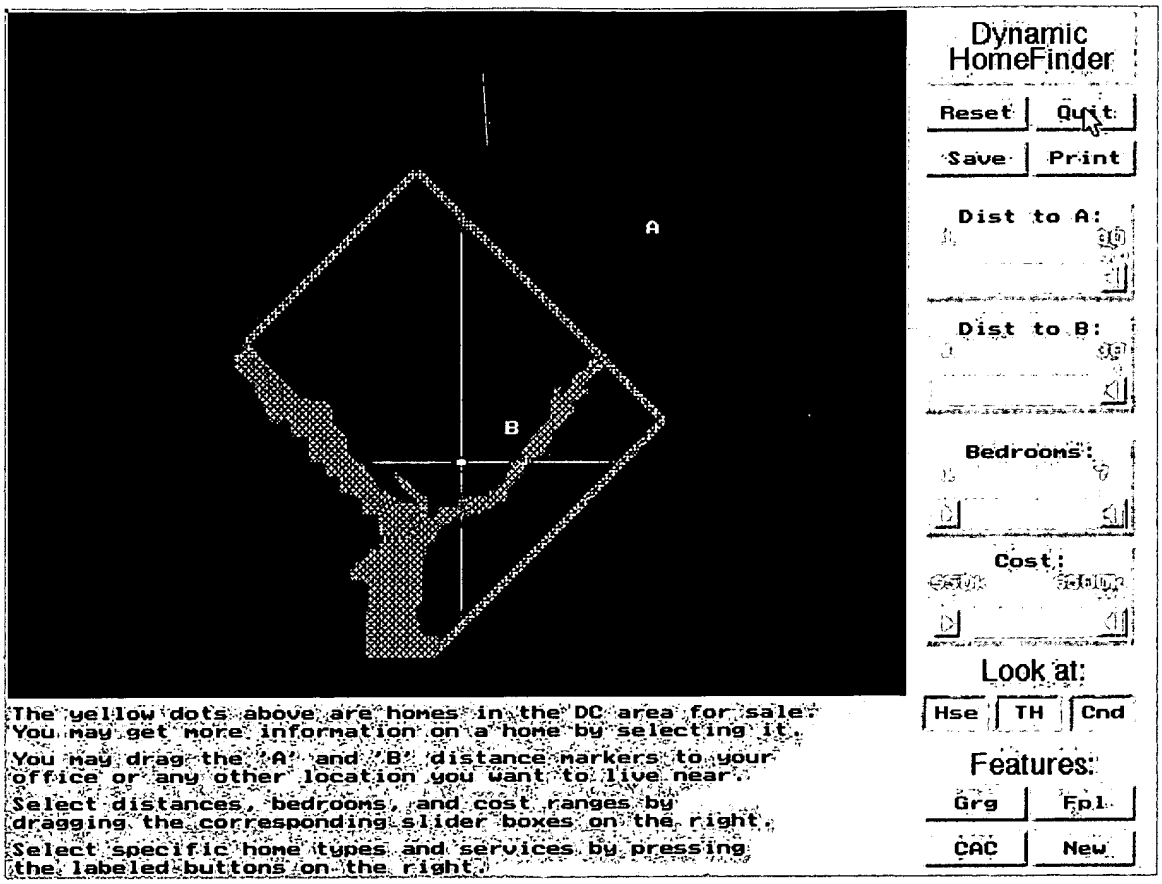
Features:
Grg
Fpl
CAC
New
The home you selected (shown in red) is:
5780 Hamilton Street, Beltsville, MD [index #1]
Beltsville, MD is a newer, middle-class neighborhood.
The $184,950 house is a 0-year-old Colonial brick home.
It is 3 miles from marker A and 9 miles from B.
It has 4 bedrooms, 1 bathroom, and 3 other rooms.
It also has: central AC
Contact: Re-Max Realtors, Chris W. at 301-595-7942

Appendix A


A
B
Dynamic HomeFinder
Reset
Quit
Save
Print
Dist to A:
Dist to B:
Bedrooms:
Cost:
Look at:
Hse
TH
Cnd
Features:
Grg
Fpl
CAC
New
The home you selected (shown in red) is:
5780 Hamilton Street, Beltsville, MD (index #1)
Beltsville, MD is a newer, middle-class neighborhood.
The $184,950 house is a 0 year-old Colonial brick home.
It is 3 miles from marker A and 9 miles from B.
It has 5 bedrooms, 1 bathroom, and 3 other rooms.
It also has: central AC
Contact: Re-Max Realtors, Chris W. at 301-595-7942

Appendix B


A
B
Dynamic HomeFinder
Reset
Quit
Save
Print
Dist to A:
Dist to B:
Bedrooms:
Cost:
Look at:
Hse
TH
Cnd
Features:
Grg
Fpl
CAC
New
The yellow dots above are homes in the DC area for sale.
You may get more information on a home by selecting it.
You may drag the 'A' and 'B' distance markers to your office or any other location you want to live near.
Select distances, bedrooms, and cost ranges by dragging the corresponding slider boxes on the right.
Select specific home types and services by pressing the labeled buttons on the right.

Appendix C